Key Terms

alarm reaction first stage of the general adaptation syndrome; characterized as the body's immediate physiological reaction to a threatening situation or some other emergency; analogous to the fight-or-flight response

asthma psychophysiological disorder in which the airways of the respiratory system become obstructed, leading to great difficulty expelling air from the lungs

biofeedback stress-reduction technique using electronic equipment to measure a person's involuntary (neuromuscular and autonomic) activity and provide feedback to help the person gain a level of voluntary control over these processes

cardiovascular disorders disorders that involve the heart and blood circulation system

coping mental or behavioral efforts used to manage problems relating to stress, including its cause and the unpleasant feelings and emotions it produces

cortisol stress hormone released by the adrenal glands when encountering a stressor; helps to provide a boost of energy, thereby preparing the individual to take action

daily hassles minor irritations and annoyances that are part of our everyday lives and are capable of producing stress

distress bad form of stress; usually high in intensity; often leads to exhaustion, fatigue, feeling burned out; associated with erosions in performance and health

eustress good form of stress; low to moderate in intensity; associated with positive feelings, as well as optimal health and performance

fight-or-flight response set of physiological reactions (increases in blood pressure, heart rate, respiration rate, and sweat) that occur when an individual encounters a perceived threat; these reactions are produced by activation of the sympathetic nervous system and the endocrine system

flow state involving intense engagement in an activity; usually is experienced when participating in creative, work, and leisure endeavors

general adaptation syndrome Hans Selye's three-stage model of the body's physiological reactions to stress and the process of stress adaptation: alarm reaction, stage of resistance, and stage of exhaustion

happiness enduring state of mind consisting of joy, contentment, and other positive emotions; the sense that one's life has meaning and value

health psychology subfield of psychology devoted to studying psychological influences on health, illness, and how people respond when they become ill

heart disease several types of adverse heart conditions, including those that involve the heart's arteries or valves or those involving the inability of the heart to pump enough blood to meet the body's needs; can include heart attack and stroke

hypertension high blood pressure

hypothalamic-pituitary-adrenal (HPA) axis set of structures found in both the limbic system (hypothalamus) and the endocrine system (pituitary gland and adrenal glands) that regulate many of the body's physiological reactions to stress through the release of hormones

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immune system various structures, cells, and mechanisms that protect the body from foreign substances that can damage the body's tissues and organs

immunosuppression decreased effectiveness of the immune system

job burnout general sense of emotional exhaustion and cynicism in relation to one's job; consists of three dimensions: exhaustion, depersonalization, and sense of diminished personal accomplishment

job strain work situation involving the combination of excessive job demands and workload with little decision making latitude or job control

lymphocytes white blood cells that circulate in the body's fluids and are especially important in the body's immune response

negative affectivity tendency to experience distressed emotional states involving anger, contempt, disgust, guilt, fear, and nervousness

optimism tendency toward a positive outlook and positive expectations

perceived control peoples' beliefs concerning their capacity to influence and shape outcomes in their lives

positive affect state or a trait that involves pleasurable engagement with the environment, the dimensions of which include happiness, joy, enthusiasm, alertness, and excitement

positive psychology scientific area of study seeking to identify and promote those qualities that lead to happy, fulfilled, and contented lives

primary appraisal judgment about the degree of potential harm or threat to well-being that a stressor might entail

psychoneuroimmunology field that studies how psychological factors (such as stress) influence the immune system and immune functioning

psychophysiological disorders physical disorders or diseases in which symptoms are brought about or worsened by stress and emotional factors

relaxation response technique stress reduction technique combining elements of relaxation and meditation

Social Readjustment Rating Scale (SRRS) popular scale designed to measure stress; consists of 43 potentially stressful events, each of which has a numerical value quantifying how much readjustment is associated with the event

secondary appraisal judgment of options available to cope with a stressor and their potential effectiveness

social support soothing and often beneficial support of others; can take different forms, such as advice, guidance, encouragement, acceptance, emotional comfort, and tangible assistance

stage of exhaustion third stage of the general adaptation syndrome; the body's ability to resist stress becomes depleted; illness, disease, and even death may occur

stage of resistance second stage of the general adaptation syndrome; the body adapts to a stressor for a period of time

stressors environmental events that may be judged as threatening or demanding; stimuli that initiate the stress process

stress process whereby an individual perceives and responds to events that one appraises as overwhelming or threatening to one's well-being

Type A psychological and behavior pattern exhibited by individuals who tend to be extremely competitive, impatient, rushed, and hostile toward others

Type B psychological and behavior pattern exhibited by a person who is relaxed and laid back

Summary

14.1 What Is Stress?
Stress is a process whereby an individual perceives and responds to events appraised as overwhelming or threatening to one's well-being. The scientific study of how stress and emotional factors impact health and well-being is called health psychology, a field devoted to studying the general impact of psychological factors on health. The body's primary physiological response during stress, the fight-or-flight response, was first identified in the early 20th century by Walter Cannon. The fight-or-flight response involves the coordinated activity of both the sympathetic nervous system and the hypothalamic-pituitary-adrenal (HPA) axis. Hans Selye, a noted endocrinologist, referred to these physiological reactions to stress as part of general adaptation syndrome, which occurs in three stages: alarm reaction (fight-or-flight reactions begin), resistance (the body begins to adapt to continuing stress), and exhaustion (adaptive energy is depleted, and stress begins to take a physical toll).

14.2 Stressors
Stressors can be chronic (long term) or acute (short term), and can include traumatic events, significant life changes, daily hassles, and situations in which people are frequently exposed to challenging and unpleasant events. Many potential stressors include events or situations that require us to make changes in our lives, such as a divorce or moving to a new residence. Thomas Holmes and Richard Rahe developed the Social Readjustment Rating Scale (SRRS) to measure stress by assigning a number of life change units to life events that typically require some adjustment, including positive events. Although the SRRS has been criticized on a number of grounds, extensive research has shown that the accumulation of many LCUs is associated with increased risk of illness. Many potential stressors also include daily hassles, which are minor irritations and annoyances that can build up over time. In addition, jobs that are especially demanding, offer little control over one's working environment, or involve unfavorable working conditions can lead to job strain, thereby setting the stage for job burnout.

14.3 Stress and Illness
Psychophysiological disorders are physical diseases that are either brought about or worsened by stress and other emotional factors. One of the mechanisms through which stress and emotional factors can influence the development of these diseases is by adversely affecting the body's immune system. A number of studies have demonstrated that stress weakens the functioning of the immune system. Cardiovascular disorders are serious medical conditions that have been consistently shown to be influenced by stress and negative emotions, such as anger, negative affectivity, and depression. Other psychophysiological disorders that are known to be influenced by stress and emotional factors include asthma and tension headaches.

14.4 Regulation of Stress
When faced with stress, people must attempt to manage or cope with it. In general, there are two basic forms of coping: problem-focused coping and emotion-focused coping. Those who use problem-focused coping strategies tend to cope better with stress because these strategies address the source of stress rather than the resulting symptoms. To a large extent, perceived control greatly impacts reaction to stressors

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and is associated with greater physical and mental well-being. Social support has been demonstrated to be a highly effective buffer against the adverse effects of stress. Extensive research has shown that social support has beneficial physiological effects for people, and it seems to influence immune functioning. However, the beneficial effects of social support may be related to its influence on promoting healthy behaviors.

14.5 The Pursuit of Happiness

Happiness is conceptualized as an enduring state of mind that consists of the capacity to experience pleasure in daily life, as well as the ability to engage one's skills and talents to enrich one's life and the lives of others. Although people around the world generally report that they are happy, there are differences in average happiness levels across nations. Although people have a tendency to overestimate the extent to which their happiness set points would change for the better or for the worse following certain life events, researchers have identified a number of factors that are consistently related to happiness. In recent years, positive psychology has emerged as an area of study seeking to identify and promote qualities that lead to greater happiness and fulfillment in our lives. These components include positive affect, optimism, and flow.

Review Questions

1. Negative effects of stress are most likely to be experienced when an event is perceived as _____.

a. negative, but it is likely to affect one's friends rather than oneself
b. challenging
c. confusing
d. threatening, and no clear options for dealing with it are apparent

2. Between 2006 and 2009, the greatest increases in stress levels were found to occur among _____.

a. Blacks
b. those aged 45–64
c. the unemployed
d. those without college degrees

3. At which stage of Selye's general adaptation syndrome is a person especially vulnerable to illness?

a. exhaustion
b. alarm reaction
c. fight-or-flight
d. resistance

4. During an encounter judged as stressful, cortisol is released by the _____.

a. sympathetic nervous system
b. hypothalamus
c. pituitary gland
d. adrenal glands

5. According to the Holmes and Rahe scale, which life event requires the greatest amount of readjustment?

a. marriage
b. personal illness
c. divorce
d. death of spouse

6. While waiting to pay for his weekly groceries at the supermarket, Paul had to wait about 20 minutes in a long line at the checkout because only one cashier was on duty. When he was finally ready to pay, his debit card was declined because he did not have enough money left in his checking account. Because he had left his credit cards at home, he had to place the groceries back into the cart and head home to retrieve a credit card. While driving back to his home, traffic was backed up two miles due to an accident. These events that Paul had to endure are best characterized as _____.

a. chronic stressors
b. acute stressors
c. daily hassles
d. readjustment occurrences

7. What is one of the major criticisms of the Social Readjustment Rating Scale?

a. It has too few items.
b. It was developed using only people from the New England region of the United States.

c. It does not take into consideration how a person appraises an event.
d. None of the items included are positive.

8. Which of the following is not a dimension of job burnout?
a. depersonalization
b. hostility
c. exhaustion
d. diminished personal accomplishment

9. The white blood cells that attack foreign invaders to the body are called _____.
a. antibodies
b. telomeres
c. lymphocytes
d. immune cells

10. The risk of heart disease is especially high among individuals with _____.
a. depression
b. asthma
c. telomeres
d. lymphocytes

11. The most lethal dimension of Type A behavior pattern seems to be _____.
a. hostility
b. impatience
c. time urgency
d. competitive drive

12. Which of the following statements pertaining to asthma is *false*?
a. Parental and interpersonal conflicts have been tied to the development of asthma.
b. Asthma sufferers can experience asthma-like symptoms simply by believing that an inert substance they breathe will lead to airway obstruction.
c. Asthma has been shown to be linked to hostility.
d. Rates of asthma have decreased considerably since 2000.

13. Emotion-focused coping would likely be a better method than problem-focused coping for dealing with which of the following stressors?
a. terminal cancer
b. poor grades in school
c. unemployment
d. divorce

14. Studies of British civil servants have found that those in the lowest status jobs are much more likely to develop heart disease than those who have high status jobs. These findings attest to the importance of _____ in dealing with stress.
a. biofeedback
b. social support
c. perceived control
d. emotion-focused coping

15. Relative to those with low levels of social support, individuals with high levels of social support _____.
a. are more likely to develop asthma
b. tend to have less perceived control
c. are more likely to develop cardiovascular disorders
d. tend to tolerate stress well

16. The concept of learned helplessness was formulated by Seligman to explain the _____.
a. inability of dogs to attempt to escape avoidable shocks after having received inescapable shocks
b. failure of dogs to learn to from prior mistakes
c. ability of dogs to learn to help other dogs escape situations in which they are receiving uncontrollable shocks
d. inability of dogs to learn to help other dogs escape situations in which they are receiving uncontrollable electric shocks

17. Which of the following is *not* one of the presumed components of happiness?
a. using our talents to help improve the lives of others
b. learning new skills
c. regular pleasurable experiences
d. identifying and using our talents to enrich our lives

18. Researchers have identified a number of factors that are related to happiness. Which of the following is *not* one of them?
a. age
b. annual income up to $75,000
c. physical attractiveness
d. marriage

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19. How does positive affect differ from optimism?

a. Optimism is more scientific than positive affect.
b. Positive affect is more scientific than optimism.
c. Positive affect involves feeling states, whereas optimism involves expectations.
d. Optimism involves feeling states, whereas positive affect involves expectations.

20. Carson enjoys writing mystery novels, and has even managed to publish some of his work. When he's writing, Carson becomes extremely focused on his work; in fact, he becomes so absorbed that that he often loses track of time, often staying up well past 3 a.m. Carson's experience best illustrates the concept of _____.

a. happiness set point
b. adaptation
c. positive affect
d. flow

Critical Thinking Questions

21. Provide an example (other than the one described earlier) of a situation or event that could be appraised as either threatening or challenging.

22. Provide an example of a stressful situation that may cause a person to become seriously ill. How would Selye's general adaptation syndrome explain this occurrence?

23. Review the items on the Social Readjustment Rating Scale. Select one of the items and discuss how it might bring about distress and eustress.

24. Job burnout tends to be high in people who work in human service jobs. Considering the three dimensions of job burnout, explain how various job aspects unique to being a police officer might lead to job burnout in that line of work.

25. Discuss the concept of Type A behavior pattern, its history, and what we now know concerning its role in heart disease.

26. Consider the study in which volunteers were given nasal drops containing the cold virus to examine the relationship between stress and immune function (Cohen et al., 1998). How might this finding explain how people seem to become sick during stressful times in their lives (e.g., final exam week)?

27. Although problem-focused coping seems to be a more effective strategy when dealing with stressors, do you think there are any kinds of stressful situations in which emotion-focused coping might be a better strategy?

28. Describe how social support can affect health both directly and indirectly.

29. In considering the three dimensions of happiness discussed in this section (the pleasant life, the good life, and the meaningful life), what are some steps you could take to improve your personal level of happiness?

30. The day before the drawing of a $300 million Powerball lottery, you notice that a line of people waiting to buy their Powerball tickets is stretched outside the door of a nearby convenience store. Based on what you've learned, provide some perspective on why these people are doing this, and what would likely happen if one of these individuals happened to pick the right numbers.

Personal Application Questions

31. Think of a time in which you and others you know (family members, friends, and classmates) experienced an event that some viewed as threatening and others viewed as challenging. What were some of the differences in the reactions of those who experienced the event as threatening compared to those who viewed the event as challenging? Why do you think there were differences in how these individuals judged the same event?

32. Suppose you want to design a study to examine the relationship between stress and illness, but you cannot use the Social Readjustment Rating Scale. How would you go about measuring stress? How would you measure illness? What would you need to do in order to tell if there is a cause-effect relationship between stress and illness?

33. If a family member or friend of yours has asthma, talk to that person (if he or she is willing) about their symptom triggers. Does this person mention stress or emotional states? If so, are there any commonalities in these asthma triggers?

34. Try to think of an example in which you coped with a particular stressor by using problem-focused coping. What was the stressor? What did your problem-focused efforts involve? Were they effective?

35. Think of an activity you participate in that you find engaging and absorbing. For example, this might be something like playing video games, reading, or a hobby. What are your experiences typically like while engaging in this activity? Do your experiences conform to the notion of flow? If so, how? Do you think these experiences have enriched your life? Why or why not?

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